Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Public Safety and Homeland Security Bureau	)	
Seeks Comment on the Technical and	)	
Operational Feasibility of Enabling Flexible	)	PS Docket No. 06-229
Use of the 700 MHz Public Safety	)	
Narrowband Allocation and Guard Band for	)	
Broadband Services	)	

COMMENTS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Introduction and Summary

The American Association of State Highway and Transportation Officials Special Committee on Wireless Communications Technology (SCOWCoT), Special Committee on Transportation Security and Emergency Management (SCOTSEM) and Subcommittee on Systems Operation and Management (SSOM) collectively, "AASHTO Committees" hereby submits these comments in response to the September 28, 2010 Public Notice (PN) of the Public Safety and Homeland Security Bureau ("PSHSB") in the above-referenced proceeding[1]. The PSHSB seeks comment on the feasibility of allowing for flexible use of the 700 MHz public safety narrowband spectrum. Specifically, the PSHSB seeks to explore whether allowing public safety the option of using 700 MHz narrowband spectrum for broadband services would be operationally feasible and technically compatible with existing and future public safety narrowband operations. Comment is also sought on potential conditions or restrictions on flexible use that might

[1] *Public Safety and Homeland Security Bureau Seeks Comment on the Technical and Operational Feasibility of Enabling Flexible Use of the 700 MHz Public Safety Narrowband Allocation and Guard Band for Broadband Services*, PS Docket No. 06-229, Public Notice, DA 10-1877 (released Sept. 28, 2010) ("Notice").

be required to prevent harmful interference to narrowband operations or impairment of narrowband interoperability.

The joint AASHTO Committees believe allowing flexible use of narrowband channels utilizing currently available, or soon to be available, technologies will cause harm to the overarching goal of establishing a nationwide interoperable communications platform for all emergency responders. The AASHTO committee members responding to this request for comment are generally undecided regarding operations within the guard bands and what safeguards should be in place but generally favor leaving the guard band spectrum in place.

I. ABOUT AASHTO

The American Association of State Highway and Transportation Officials is a 501(C)(3) trade association representing the Bureau, Department or Agency in each of the fifty states, the District of Columbia, and the Commonwealth of Puerto Rico having primary responsibility for the operation and maintenance of our nation's transportation system of roads, rails, water, air, and public.

The AASHTO Special Committee on Wireless Communications Technology is composed of three representatives from each of AASHTO's four regions that are recognized for their knowledge and leadership in the design, deployment, and operation of statewide wireless communication systems. AASHTO's Special Committee on Transportation Security and Emergency Management consists of up to three representatives from each member organization specializing in the security of the transportation infrastructure and emergency management. The Subcommittee on Systems Management and Operations is composed of representatives from each

organization having the responsibility for the management and operation of our nation's roads and highways and the intelligent transportation systems supporting them. Each of these committees is directly involved with the protection of life, health and property.

II. COMMENTS

Under the auspices of the SCOWCoT, AASHTO polled each state for comments and thoughts on the issues raised in the PN and how they would respond to each of the questions raised. Several states indicated they had plans to implement 700 MHz systems with the primary purpose being voice connectivity. The state of Oregon is deeply committed to building out and operating a statewide 700 MHz voice dispatch system which will dedicate all available channels to narrowband voice communications. Additional states indicated allowing already allocated channels to be aggregated into wide or broadband data circuits will cause harmful interference to adjacent and co-channel users.

There was a general consensus any repurposing of allocated channels would require each state to scrap their approved communications plans and undergo the expense of reconvening focus groups to determine user needs and requirements for wide and broadband data in the narrowband voice spectrum. Communications plans would have to be rewritten and approved by each regional planning committee as allocations would change. Should an area be successful in obtaining sufficient contiguous spectrum to operate a broadband data path, the number of narrowband voice channels in that region would be reduced leaving systems operating in adjacent zones unable to expand their systems.

The Illinois DOT states "There is some overlap between the uses of broadband spectrum and narrowband spectrum. For example, voice transmissions can take place over a broad band channel or a narrowband channel. Or small amounts of data can be transmitted either way.[2]" New Hampshire joined Illinois in pointing out voice traffic can be carried over both narrowband and wideband channels and limited amounts of data can also be transmitted over narrowband voice channels. New Hampshire also stated "Flexibility allowing wideband operation in [the] narrowband only portion of the 700-mhz band would hinder nationwide narrowband interoperability because no nationwide coordination body exists to determine how conflicts in use should be resolved.[3]"

Several states indicated transition from systems currently in use to the 700 MHz Band will occur first in areas where expansion is limited due to spectrum congestion in other bands. However, Minnesota states, "The requirement for migration to 6.25 kHz is a major deterrent towards utilization of 700 narrowband voice even in areas where the 800 MHz band is saturated.[4]" Other states have stated their current 800 MHz systems have not reached capacity or have not reached an age where replacement is warranted.

The states responding to AASHTO's query for comments were mixed as to the need and use of the spectrum reserved for guard band. Several felt the guard band spectrum could be used for low power operations without adversely impacting their intent of providing a buffer between high power operations. Illinois stated, "The 1 MHz guard band seems to be excessive. We believe 90% of that guard band could be used for low power interoperability channels for narrowband voice, or low power broadband

[2] IL DOT Comments to DA-10-1877, Timothy Peters
[3] NH DOT Comments to DA-10-1877A1, David Chase, NH DOT Vice Chair, SCOWCoT
[4] MN DOT Comments to DA-10-1877, James Mohn

applications without posing a substantial risk to users.[5]" However, any use of the guard bands by other users will require the Commission modify the spectrum allocation licensed to the Public Safety Spectrum Trust.

III CONCLUSION

The AASHTO Committees strongly urge the Commission to weigh any changes to the current 700 MHz spectrum allocations carefully. While allowing flexible use of narrowband spectrum for wide or broadband applications can benefit users in rural areas and harm those in metropolitan areas, the cost incurred by the entities supporting the Regional Planning Committees to essentially scrap all work that has been accomplished and restart the allocation process will be staggering in the current economy. In those instances where large regional or statewide systems are being planned or constructed, any changes to spectrum allocations will constitute an unplanned burden. The AASHTO responders are unanimous in their call for standards to govern the interoperation of devices using 700 MHz spectrum. One state suggested a standard be developed allowing a single device to be used for both narrow and broadband with the ability to automatically configure its mode based on need.

[5] *Ibid* at 2

Respectfully,

AASHTO Special Committee on Wireless Communications Technology, William A. Brown, Chair
AASHTO Special Committee in Transportation Security and Emergency Management, Charles Runyon, Vice Chair
AASHTO Subcommittee on Systems Operation and Management, R. Scott Rawlins, P.E., Chair

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